REMARKS

Claims 1-14 have been examined. Applicant is adding new claims 15-17. Claims 1-17 are all the claims pending in the application.

Applicant thanks the Examiner for acknowledging Applicant's claim to foreign priority under 35 U.S.C. § 119(a) - (d) and further acknowledging receipt of all certified copies of the priority documents.

Applicant also thanks the Examiner for considering all the references cited in PTO Form 1449 attached to Applicant's Information Disclosure Statement filed on March 6, 2003.

Objection to Drawings

The Examiner has objected to Figure 6 for the reasons set forth on page 1, paragraph 1 of the Office action. The Examiner has also objected to the drawings for allegedly failing to comply with 37 C.F.R. § 1.84(p)(5) for the reasons set forth on page 1, paragraph 2 of the Office action.

With respect to Figure 6, Applicant is submitting a proposed drawing correction for the Examiner's review and approval. However, the Examiner's objection relating to the disclosure of UDP port 520 is incorrect. UDP port "520" is not a reference number. Rather, it is a particular protocol port number used for Routing Information Protocol (RIP) as to source and destination ports of a host. Figures 4-6 explain the RIP packet. However, the UDP port number

(i.e., 520) is not a reference character and therefore need not be illustrated in Applicant's

drawings.

Accordingly, Applicant respectfully requests that the objections to the drawings be

withdrawn.

Objection to the Specification

The Examiner has objected to the specification for the reasons set forth on page 1,

paragraph 3 of the Office action. Applicant is amending the specification to correct the issues

raised by the Examiner therein. Accordingly, Applicant respectfully requests that the objection

to the specification be withdrawn.

Objection to Claims

The Examiner has objected to claims 5 and 6 for the reasons set forth on page 1,

paragraphs 4 and 5 of the Office action. Applicant is amending claims 5 and 6.

Applicant respectfully requests that the objection to claims 5 and 6 be withdrawn.

Rejection of Claims 1-5, 7 and 10-13 under 35 U.S.C. §103(a)

The Examiner has rejected claims 1-5, 7 and 10-13 under 35 U.S.C. § 103(a) as allegedly

being unpatentable over U.S. Patent No. 5,224,205 (hereinafter Dinkin), in view of U.S. Patent

No. 5,754,790 (hereinafter France). Applicant respectfully traverses this rejection.

Claim 1

The node search method of claim 1 includes, *inter alia,* "a host of a first domain,

acquiring a packet which includes routing information of a network configured with a plurality

of domains including the first domain connected to at least one interworking unit." The

Examiner contends that Dinkin, in view of France performs the search at the interface node (page

5, line 18), but that it would have been obvious to acquire the routing information at the

requesting node in order to minimize the use of resources in the interface node and to allow

parallel searching to occur by having multiple individual nodes search simultaneously. (Page 5,

line 18 through page 6, line 2 of the Office action).

"There are three possible sources of motivation to combine references: the nature of the

problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary

skill in the art." MPEP §2143.01 (8th Edition); In re Rouffet, 149 F.3d 1350, 1357, 47

U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998). In this case, the Examiner's alleged motivation

cannot be objectively traced to any of these sources. Rather, the alleged motivation to modify

the specific teachings of Dinkin, in view of France is an attempt to reconstruct the node-search

method of claim 1 based on *impermissible* hindsight alone. Indeed, the benefit alleged by the

Examiner for modifying Dinkin, in view of France, is a benefit that arises from an illustrative,

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non-limiting embodiment of the claimed invention, apparent only after the invention is known, not a motivation to provide the specific invention claimed.

Notwithstanding, Dinkin and France, individually or in combination, fail to teach or suggest that a host acquires the claimed routing information from an interworking unit (e.g. interface node). Based on the network topology, routing and protocols of a System Network Architecture (SNA) of Dinkin, the interface node stores a domain directory for the networks it serves (networks being homogenous or heterogeneous)(col. 2, line 63- col. 3, line 3) and hosts of either type of network (i.e., homogenous or heterogenous) are not acquiring the claimed routing information. Additionally, France describes the Routing Information Protocol (RIP) based on a network consisting of routers and hosts. (Background of the Invention). However, France fails to suggest that hosts acquire the claimed routing information.

When considering Dinkin and France as a whole, there is simply no teaching or suggestion of this aspect of the node-search of method claim 1.

Additionally, the node search method of claim 1 also includes "the host, sending a broadcast packet, for requesting a response from a node which provides a specific service, to at least any one of said plurality of domains other than the first domain which is listed in said acquired routing information."

Dinkin describes that the interface node receives a broadcast type of search request from a network node on the peer-to-peer network (PPN) side. (Col. 2, lines 59-60) The interface node (IN) is composed of two sections and provides format translation services for the search commands that are passed between the physical networks 102 and 104 via the IN (col. 6, lines

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10-15). Upon receipt of a search from the PPN side, the PPN section of the IN searches its own resources, and if necessary, searches network nodes (NNs) that are adjacent to the IN and also end nodes (EN). (Col. 7, lines 8-14). Dinkin also describes that search requests are sequentially transmitted from the interface node to each subarea domain of the second network until the resource is found, rather than broadcasting requests to all subarea domains at the same time. (Col. 3, lines 26-32).

However, as acknowledged by the examiner, Dinkin fails to disclose the details of how each subarea domain of the second network is searched. (page 3, paragraph 8 of the Office action). Nonetheless, the examiner alleges that "it would have been obvious …to have the search request packet sent to each subarea domain be a broadcast packet in order to allow quick identification of the network resource." Applicant respectfully disagrees.

The approach by Dinkin in the second network is clearly not aimed at "quick identification," otherwise the interface node of Dinkin would transmit a broadcast to all subarea domains at the same time. Further, in the event that there are two or more host nodes in a single subarea domain, the interface node "could" sequentially transmit a request packet to each host of a common subarea domain, instead of transmitting a broadcast packet to the subarea domain. Such an approach would "minimize the effects of a search in the second network," as taught by Dinkin. (Col. 3, lines 28-30).

Moreover, Dinkin describes that "[o]nly if all responses from the adjacent network nodes are negative is a search of the second network initialized." (Col. 3, lines 24-26). Accordingly,

the allegedly corresponding method of Dinkin does not teach or suggest the above-mentioned limitation of method claim 1.

Further, it logically follows, that if Dinkin does not teach or suggest the host acquiring the claimed routing information, the requesting node of Dinkin could not possibly send "a broadcast packet... to at least one of said plurality of domains other than the first domain...," since routing information is not known by the requesting node.

Finally, the examiner alleges that Dinkin suggests that the first network could be of the same type as the second network, in which case, the search in the second network would be conducted in a manner similar to the search in the first network. (Page 4, lines 1-6 of the Office action).

Even assuming *arguendo,* that Dinkin suggests this, this aspect of Dinkin fails to teach or suggest the above-mentioned limitation, for at least the following reasons.

Dinkin searches the first network by having the interface node transmit a broadcast search request "only" to adjacent network nodes of the first network. (Col. 2, lines 51-58). The broadcast search request also requests that "if" the resources are not found in the adjacent nodes, that the adjacent nodes broadcast the search to its adjacent nodes. Id.

In contradistinction, the host of claim 1 sends a broadcast packet to at least any one of said plurality of domains other than the first domain. Accordingly, Dinkin fails to teach or suggest this aspect of method claim 1. Applicant also notes that the directed search of Dinkin

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fails to correspond to this aspect of claim 1, since a specific node is only targeted and a broadcast

packet would not be needed. (Col. 3, lines 33-37).

Applicant submits that France also fails to teach or suggest the above-mentioned

limitations. For at least these reasons, Dinkin and France, individually or in combination, fail to

teach or suggest the above-mentioned limitations of the node-search method of claim 1.

Since Dinkin and France, individually or in combination, fail to teach or suggest the

above-mentioned limitations, the applied art could not possibly teach or suggest the "receiving a

response packet" of claim 1.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations

must be taught or suggested by the prior art. MPEP §2143.03 (8th Edition); In re Royka, 490

F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). In this case, the Examiner has failed to establish a

prima facie case of obviousness, because Dinkin and France, individually or in combination, fail

to teach or suggest all the claim limitations of claim 1.

Accordingly, Applicant respectfully requests that the rejection of claim 1 under 35

U.S.C. § 103(a) be withdrawn.

Claim 2

For reasons analogous to those discussed above with respect to claim 1, Dinkin and

France, individually or in combination, fail to teach or suggest all the limitations of claim 2.

The node-search method of claim 2 requires "sending a packet, for requesting routing information...to the interworking unit...." As discussed above, Dinkin and France, individually or in combination, fail to teach or suggest this aspect of claim 2. Applicant respectfully disagrees that it would have been obvious to conduct the node-search at the requesting node and the motivation for doing so cannot be objectively traced to the prior art.

Since Dinkin and France fail to teach the above aspect of claim 2, Dinkin and France, individually or in combination, could not possibly teach or suggest the remaining limitations of claim 2.

Accordingly, Applicant respectfully requests that the rejection of claim 2 under 35 U.S.C. § 103(a) be withdrawn.

Claim 3

With respect to claim 3, the grounds of rejection fail to address the first process for "searching for all the domains of the network" and the second process, as recited therein.

MPEP §2142 (Legal Concept of Prima Facie Obviousness)(8th Edition) states that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness. *Id.*

Notwithstanding, Dinkin and France, individually or in combination, fail to teach or suggest these aspects of the node-search method of claim 3. Accordingly, Applicant respectfully requests that the rejection of claim 3 under 35 U.S.C. § 103(a) be withdrawn.

Claim 4

With respect to claim 4, the grounds of rejection fail to address the limitation "acquiring information indicating a network number and an address of a router of each domain in the network from said received RIP packet."

Notwithstanding, Dinkin and France, individually or in combination, fail to teach or suggest this aspect of the node-search method of claim 4. Accordingly, Applicant respectfully requests that the rejection of claim 4 under 35 U.S.C. § 103(a) be withdrawn.

Claim 5

For reasons analogous to those presented above with respect to claims 1 and 2, Dinkin and France, individually or in combination, fail to teach or suggest all the limitations of claim 5. In particular, Dinkin and France, individually or in combination, fail to teach or suggest a node device which acquires domain information, finds the broadcast addresses, generates requests, and extracts information. Rather, Dinkin teaches that a node sends a request to the IN, wherein the IN searches for addresses and sends the packet to the network.

Additionally, the grounds of rejection fail to address the limitations "network interface

means" and "means for finding broadcast addresses for said domain_s." (Emphasis added).

Accordingly, Applicant respectfully requests that the rejection of claim 5 under 35

U.S.C. § 103(a) be withdrawn.

Claim 7

For reasons analogous to those discussed above with respect to claim 1, Dinkin and

France, individually or in combination, fail to teach or suggest all the limitations of claim 7.

Claim 7 recites, *inter alia*, a process of acquiring a packet containing routing information,

from at least one interworking unit of a network configured with a plurality of domains including

the first domain; and a process of sending a broadcast packet, for requesting a response from a

node which provides a specific service, to at least any one of said plurality of domains other than

the first domain which is listed in said acquired routing information.

Accordingly, Applicant respectfully requests that the rejection of claim 7 under 35

U.S.C. § 103(a) be withdrawn.

Claims 10-12

For reasons analogous to those discussed above with respect to claim 3, Dinkin and

France, individually or in combination, fail to teach or suggest all the limitations of claim 10.

Accordingly, Applicant respectfully requests that the rejection of claim 10 under 35

U.S.C. § 103(a) be withdrawn. Claims 11 and 12 are patentable at least by virtue of their

dependency on claim 10.

Claim 13

For reasons analogous to those discussed above with respect to claim 4, Dinkin and

France, individually or in combination, fail to teach or suggest all the limitations of claim 13.

Accordingly, Applicant respectfully requests that the rejection of claim 13 under 35

U.S.C. § 103(a) be withdrawn.

Rejection of Claims 6, 8 and 9 under 35 U.S.C. §103(a)

The Examiner has rejected claims 6, 8 and 9 under 35 U.S.C. § 103(a) as allegedly being

unpatentable over Dinkin. Applicant respectfully traverses this rejection.

Claim 6

For reasons analogous to those discussed above with respect to claim 1, Dinkin fails to

teach or suggest all the limitations of claim 6. Claim 6 recites, *inter alia*, means for sending a

packet, for requesting routing information for a network configured with a plurality of domains

including the first domain connected to at least one interworking unit, to the at least one

interworking unit, which is capable of storing preset routing information; and means for sending

a request packet, for requesting a response from a node which provides a specific service, which

is broadcasted to at least any one of said plurality of domains other than the first domain

connected through the interworking unit, to the interworking unit.

Accordingly, Applicant respectfully requests that the rejection of claim 6 under 35

U.S.C. § 103(a) be withdrawn.

Claims 8 and 9

For reasons analogous to those discussed above with respect to claim 1, Dinkin fails to

teach or suggest all the limitations of claim 8. Accordingly, Applicant respectfully requests that

the rejection of claim 8 under 35 U.S.C. § 103(a) be withdrawn. Claim 9 is patentable at least by

virtue of its dependency on claim 8.

Rejection of Claim 14 under 35 U.S.C. §103(a)

The Examiner has rejected claim 14 under 35 U.S.C. § 103(a) as allegedly being

unpatentable over Dinkin, in view of U.S. Patent No. 5,926,463 (hereinafter Ahearn). Applicant

respectfully traverses this rejection.

For reasons analogous to those discussed above with respect to claim 1, Dinkin fails to

teach or suggest all the limitations of claim 14. Claim 14 recites, *inter alia*, the claimed process

of receiving and the claimed process of broadcasting.

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Ahearn fails to cure the deficiencies of Dinkin.

The Examiner relies on Ahearn to teach updating of network maps using Simple Network

Management Protocol (SNMP) packets. (Page 9, lines 15-18 of the Office action). While

Ahearn describes the use of SNMP packets, Ahearn fails to teach or suggest any of the remaining

limitations of claim 14.

Dinkin and Ahearn, individually or in combination, fail to teach or suggest all the

limitations of claim 14. Accordingly, Applicant respectfully requests that the rejection of claim

14 under 35 U.S.C. § 103(a) be withdrawn.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned attorney at the telephone number listed below.
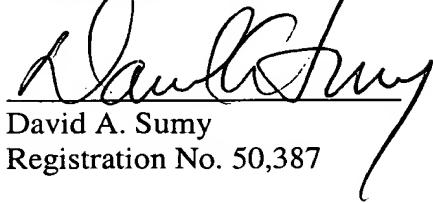
The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

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overpayments to said Deposit Account.

Respectfully submitted,

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